



# BROAD EXAMINATIONS®

## P.5 MATHEMATICS EXAMINATION

### MID - TERM III 2024

Time allowed: 2 hours 30 minutes

Pupil's Name: .....

School Name: .....

District Name: .....

**Read the following instructions carefully:**

1. This paper is made up of two sections: A and B.
2. Section A has 20 questions (40 Marks)
3. Section B has 12 questions (60 Marks)
4. Answer **ALL** questions in both sections A and B.
5. All answers must be written in the space provided in blue or black ball point pens and ink. **Only diagrams should be done in pencil.**
6. Unnecessary crossing of answers will lead to loss of marks.
7. Any handwriting, which cannot be easily read, may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated for Examiners' use only.

#### FOR EXAMINERS' USE ONLY

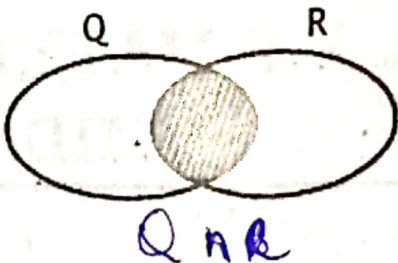
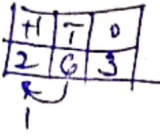


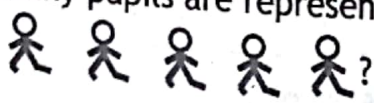
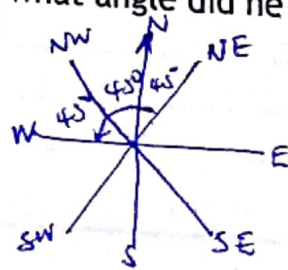
PAGES	MARKS	SIGN
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TOTAL		

**Teacher's comment to the learner**

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Approved by:

Team Head Mathematics Department

<p>1. Multiply <math>3 \times 5</math>.</p> <p><math>3 \times 5 = 15</math></p>	<p>2. Name the shaded region in the venn diagram below.</p>  <p><math>Q \cap R</math></p>
<p>3. Round off 263 to the nearest hundreds.</p>  <p><math>\begin{array}{r} 200 \\ + 100 \\ \hline 300 \end{array}</math></p> <p>263 is rounded up to 300</p>	<p>4. Convert <math>\frac{4}{5}</math> into a decimal.</p> <p><math>5 \overline{)40}</math></p> <p><math>\frac{4}{5} = 0.8</math></p>
<p>5. Tell the time shown on the clock face below.</p>  <p>It is half past 8 o'clock.</p>	<p>6. Simplify; <math>2k - 5k + 7k</math></p> <p><math>2k + 7k - 5k</math></p> <p><math>9k - 5k</math></p> <p><u><math>4k</math></u></p>
<p>7. List the first five odd numbers.</p> <p>odd numbers: <math>\{1, 3, 5, 7, 9\}</math></p>	<p>8. Find the diameter of a circle whose radius is 4cm.</p> <p><math>D = 2R</math></p> <p><math>D = 2 \times 4</math></p> <p><math>D = 8\text{cm}</math></p>
<p>9. Given that  represents 4 pupils, how many pupils are represented by ?</p> <p>1 represents 4 pupils</p> <p>5 represent <math>4 \times 5 = 20</math> pupils</p>	<p>10. Peter was facing North East and turned anti-clockwise to face West. Through what angle did he turn?</p>  <p><math>45^\circ + 45^\circ + 45^\circ</math></p> <p><u><math>135^\circ</math></u></p>



<p>11. Change 4km to metres.</p> <p>1 km — 1000 m</p> <p>4 km — <math>4 \times 1000 \text{ m}</math></p> <p>4000 m</p>	<p>12. Subtract;</p> $\begin{array}{r} 4 \text{ } 0 \text{ } 3 \text{ five} \\ - 1 \text{ } 3 \text{ } 2 \text{ five} \\ \hline 2 \text{ } 2 \text{ } 1 \text{ five} \end{array}$
<p>13. A mathematics lesson that started at 8:00am ended at 9:30am. How long did the lesson take?</p> $\begin{array}{r} 9:30 \\ - 8:00 \\ \hline 1:30 \end{array}$ <p>1 hr 30 mins</p>	<p>14. Write 149 in words.</p> <p>One hundred forty nine</p>
<p>15. Reduce <math>\frac{12}{18}</math> to its lowest form.</p> $\frac{12 \div 6}{18 \div 6} = \frac{2}{3}$	<p>16. Five loaves of bread cost sh. 27500. How many loaves of bread can one buy with sh. 16500?</p> $\begin{array}{r} 5500 \\ 27500 \\ \hline 5 \end{array}$ <p>sh. 5500</p> $\begin{array}{r} 333 \\ 16500 \\ \hline 5500 \\ \hline 11 \\ \hline 1 \\ \hline 3 \text{ loaves} \end{array}$
<p>17. Draw a line segment KM = 5.5cm in the space provided below.</p>	<p>18. Name the set symbol below;</p> <p><math>\longleftrightarrow</math> <u>Equivalent</u></p>
<p>19. How many quarters make up 6 wholes?</p> $6 \div \frac{1}{4}$ $6 \times \frac{4}{1} = \frac{24}{1} = 24$	<p>20. Given that <math>c = 4</math> and <math>b = 3</math>, find the value of <math>c + b</math>.</p> $4 + 3 = 7$

**SECTION .B. (60 MARKS)**

21. Given the digits 7, 4 and 8, use them to answer the questions that follow.

(a) Write all the possible 3-digit numerals that can be formed from the above digits.

748  
784  
478✓  
487✓  
847✓  
874✓

(b) Find the difference between the biggest and smallest numerals formed.

biggest  $\begin{array}{r} 748 \\ 874 \\ \hline \end{array}$   
smallest  $\begin{array}{r} 478 \\ 396 \\ \hline \end{array}$

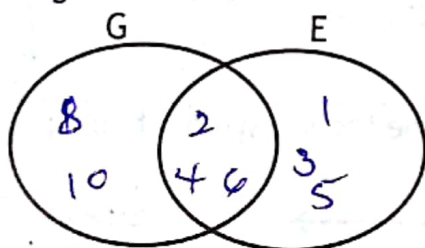
(c) Write the answer in (b) above in words.

396. Three hundred ninety six.

(06 Marks)

22. Given that set E = (counting numbers less than 7) and set G = (even numbers between 0 and 12).

(a) Represent the above two sets on the venn diagram below.



$E = \{1, 2, 3, 4, 5, 6\}$   $G = \{2, 4, 6, 8, 10\}$

(b) Find  $n(E \cap G)$ .

$E \cap G = \{2, 4, 6\}$   
 $n(E \cap G) = 3$

(04 marks)

23. (a) Show 25 minutes past ten o'clock on the clock face below.



(b) A motorist left town N to town R travelling at a speed of 30km/h for  $2\frac{1}{2}$  hours. How far is town R from town N?

$D = S \times T$   
 $D = 30 \text{ km/h} \times 2\frac{1}{2} \text{ h}$   
 $D = 75 \text{ km}$

(04 Marks)

24. Find the missing numbers in each of the sequences below.

(a) 1, 4, 9, 16, 25, 36  
 $1^2, 2^2, 3^2, 4^2, 5^2, 6^2$

(b) 27, 23, 19, 15, 11, 7  
 $-4, -4, -4, -4, -4$

25. (a) Work out;  $\begin{array}{r} 3465 \\ + 7549 \\ \hline 11014 \end{array}$

(b) Subtract;  $\begin{array}{r} 78012 \\ - 3654 \\ \hline 4358 \end{array}$

(04 marks)

(c) 8 boys shared pancakes and each of them got 6 pancakes. How many pancakes did they share altogether?

1 boy got 6 pancakes  
 8 boy got  $6 \times 8$  pancakes  
48 pancakes.

(06 Marks)

26. In a village of 60 farmers,  $\frac{2}{3}$  of the farmers grow millet and the rest grow maize.

(a) Find the fraction of farmers who grow maize.

$\frac{3}{3} - \frac{2}{3} = \frac{1}{3}$

(b) How many farmers grow millet?

$\frac{2}{3} \times 60$   
 $2 \times 20$   
40 farmers



(c) How many more farmers grow millet than maize?

(05 Marks)

27. The table below shows prices at which Mackline bought different items from a certain shop. Study and complete it correctly.

Item	Quantity	Unit cost	Amount
Beans	2kg	Sh. 3000 per kg	Sh. <u>6000</u>
Milk	<u>3</u> litres	Sh. 1200 per litre	Sh. 3600
Books	1 dozen	Sh. <del>8500</del> <u>700</u> each book	Sh. 8400
Pens	5	Sh. 600 each	Sh. <u>3000</u>
Total expenditure			Sh. <u>21000</u>

$$\begin{array}{r} 8400 \\ + 2700 \\ \hline 11100 \end{array}$$

(05 marks)

28. (a) Add; Kilograms      Grams  
4                              750

(b) Convert 5000 millilitres to litres.

$$\begin{array}{r} 5000 \text{ ml} \\ \div 1000 \\ \hline 5 \text{ L} \end{array}$$

$$4 \times \frac{1}{2}$$

$$4 \times \frac{2}{1} = 8 \text{ half litres}$$

29. Find the missing numbers below.

(a)

$$\boxed{5} \times 6 = 30$$

$$30 \div 6 = 5$$

$$(b) 8 + \boxed{3} = 11$$

$$11 - 8 = 3$$

$$(c) \boxed{36} \div 4 = 9$$

$$9 \times 4 = 36$$

(06 Marks)

30.

Using a pencil, a ruler and a pair of compasses, construct a rectangle FGHE where  $\overline{FG} = 7\text{cm}$  and  $\overline{GH} = 4\text{cm}$ .

(04 Marks)

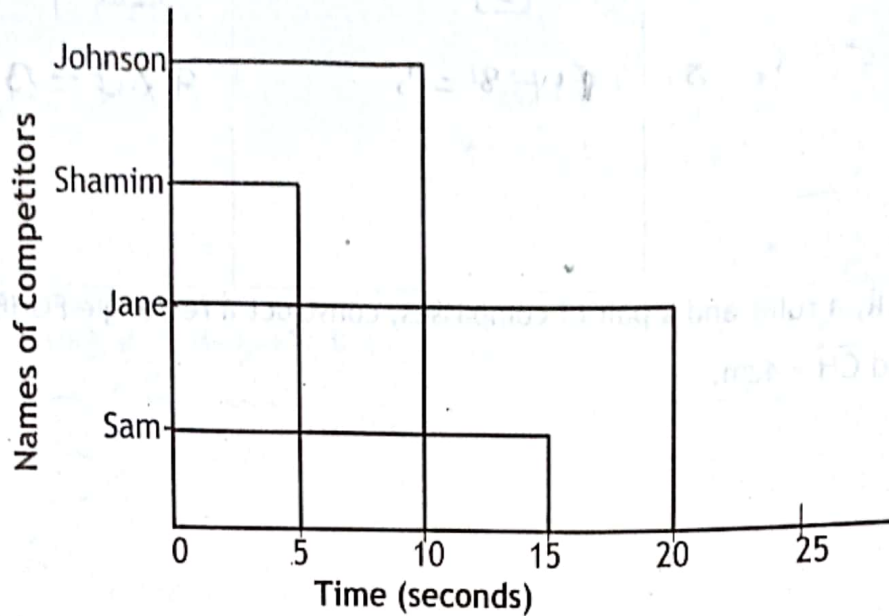
31. Arrange 0.05, 0.4, 0.02 and 0.5 starting from the biggest to the smallest.

0.5	0.4	0.05	0.02
0.5	0.4	0.05	0.02
0.5	0.4	0.05	0.02
0.5	0.4	0.05	0.02

0.5, 0.4, 0.05, 0.02.

(05 marks)

32. The graph below shows the time taken by different competitors in a race. Use it to answer the questions that follow.



- |   |   |
|---|---|
| (a) Who won the race?<br><br>Shamim   | (b) How long did Johnson take to complete the race?<br><br>10 seconds   |
| (c) How many more seconds did Jane take to complete the race than Sam?<br><br>$\begin{array}{r} 20 \\ - 15 \\ \hline 5 \text{ seconds} \end{array}$ | (d) Find the total time taken by all the competitors in seconds.<br><br>$5 + 10 + 15 + 20$ <u>50 seconds.</u> |

(06 Marks)

END